

The Larva of *Trinodes hirtus*, F. (Dermestidae, Col.). (With Plate.)

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Having taken some nine examples of the larva of *Trinodes hirtus*, F., in Richmond Park in July, 1921, I asked Miss Tassart to make a drawing of this curious creature—which we now publish. It was our intention to rear some of these larvae, and to publish notes on their metamorphosis, together with the drawing. The larvae, however, all died during the winter; the plaster cell, in which they had been placed, being kept too damp, and the sketch was put away and forgotten.

Having frequently reared the imago from larvae taken in Windsor Forest during recent years, and having found the sketch again, it seems advisable, especially as there is not a good figure of this larva in existence, to publish this excellent and accurate drawing without further delay. The beetle may always be met with where it is known to occur, but it is undoubtedly a very local and rare insect in this country. It is found in, and about, the webs of spiders, under bark, chiefly of oak (though I have also taken it under loose bark of elm, and poplar), and I have taken it by brushing in hollow trees; and in cobwebs, and on the shelves and walls of deer pens. The larva, of course, occurs in similar positions and often in company with the larva of *Tiresias serra*, F.

The beetle was described by Fabricius in 1781, but the first mention of the larva is by Erichson in 1846, who gave a short description in 1853. Douglas, in 1859, gave a short description of the creature, and Chapuis et Candéze also gave a short description of a larva which had recently produced an example of the beetle. He said the larva pupated in the middle of May within the larval skin under the web of the spider. In 1868 Mulsant and Ray give a good and long description of the larva, but the figure they published is very poor, and, in fact, not a bit like the creature. Ganglbauer mentions what previous authors had to say, and records that he has also found it in the fine web of the house-spider *Tegenaria domestica*, L., and that it ran with great quickness over the web. Dollman, in 1912, records that he and Donisthorpe took the larva in Richmond Park and that it metamorphosed into a well-matured imago. Britten, in 1916, captured a larva on April 24th in Thame Park, Oxfordshire, which pupated on May 3rd, hatched May 13th, and emerged May 22nd.

In Windsor Forest Miss Kirk and I have found imagos in May, June, July and August, the larvae in May, June, July, August and September, and the pupa in May and June.

We find the best way to rear these larvae is to keep them separately in small glass topped boxes with a little damp (not too damp) cotton wool; and feed them on dead flies. Pupation takes place, as with *Tiresias* within the larval skin, and the imago remains *in situ* until mature. The larvae easiest to rear are those taken in May, as they generally hatch the same year—to give the dates of two of the imagos reared:—

a larva taken 4.v.24, pupated 12.v.24, hatched 28.v.24.

„ „ „ 28.ix.26, „ 7.v.27, „ 21.v.27.

As far as we are aware there are very few localities recorded for this beetle in Britain.

Stephens gives near Exeter (W. Spence); and Windsor. Fowler adds Richmond Park (Power); Fowler and Donisthorpe, Coddensham, Suffolk (Fox); and Britten, Thame Park, Oxon.

LITERATURE REFERRED TO.

- Britten, H., "*Trinodes hirtus*, F., in Oxfordshire." *Ent. Mo. Mag.* **52** 185 (1916).
 Chapuis, F. and Candéze, E. *Mém. Soc. Sci. Liège* **8** 444 (1853).
 Dollman, H., "Coleoptera noted in the Home Counties," *Ent. Rec.* **25** 150 (1912).
 Douglas, J. W., *Trans. Ent. Soc. Lond.* (n.s.) **5** *Proc.* 69 (1859).
 Erichson, W. F., *Ins. Deutschl.* **3** 460 (1846).
 Fabricius, J. C., *Sp. Ins.* **1** 93 (1781).
 Fowler, W. W., *Col. Brit. Isles*, **3** 364 (1889).
 Fowler, W. W. and Donisthorpe, H. St. J. K., *Col. Brit. Isles (Supplement)* **6** 268 (1913).
 Ganglbauer, L. *Käfer Mitteleurop.* **4** 146 (1904).
 Mulsant, E. and Rey, C., "Nat. Coll. Fr. Scuticoll." 1867 in *Ann. Soc. Linn. Lyon* (n.s.) **15** 176 t.2.f.6 1867 (1868).
 Stephens, J. F. III. *Brit. Ent. Mand.* **3** 132 (1830).
 Stephens, J. F. *Maunal* 45 (1839).

APPENDIX.

This appears a convenient place to give a list of some other Coleopterous larvae which I have described, figured, or otherwise dealt with. Firstly my friend Mr. Blair is working at a paper on the Coleopterous larvae of the World; and secondly in a recent paper by A. W. Rymer Roberts ["A Key to the Principle Families of Coleoptera in the Larval Stage." *Bull. Ent. Research* **21** 57-72 (1930)]. In the Bibliography hardly any British authors are mentioned, and certainly none of the papers below are referred to.

1. "Paper as a Pabulum for the larva of *Tiresias serra*, F., with some notes on the larva and its Pupation." [The larva and pupation shortly described.] *Ent. Rec.* **9** 162 (1897).
2. "Description of the larva of *Quedius kraatzii*, Bris." [A full and careful description of the larva.] *Ent. Rec.* **11** 266 (1899).
3. "All that is known of *Metoeus paradoxus*, L." [Life-history, habits of larva, and young and old larvae briefly described.] *Trans. Leicester Lit. Phil. Soc.* **5** 183-86 (1899).
4. "The Life-History of *Clythra quadri-punctata*, L." [Full life-history; eggs, larvae, pupa, egg-case, and larval-cases, etc., described and figured.] *Trans. Ent. Soc. Lond.* **1902** 11-25 (with Coloured Plate).
5. "Coleoptera at Pamber Forest." [Description of the young larva, larval-cases, egg-cases and egg-laying of *Labidostomis tridentata*, L., described.] *Ent. Mo. Mag.* **39** 205 (1903).
6. "Notes on the Life-Histories of two supposed Ants' Nest Beetles." [*Labidostomis tridentata*, L.; eggs, egg-cases and egg-laying, and young larvae and larval cases described and figured. *Prionocyphon serraticornis*, Müll.: larva and pupa figured for the first time; the reference to their description given and bionomics dealt with]. *Ent. Rec.* **20** 108-10 (1908) (with plate).
7. "Myrmecophilous Notes for 1909." [Larva of *Cetonia flavicola*,

Hrbst. and the fact that it does not use its legs for walking but moves along on its back by means of the bristles on the dorsal surface first mentioned].

Ent. Rev. **21** 287-91 (1909).

8. "A note on *Cryptocephalus bipunctatus*, L., etc." [Notes on the egg-laying, larval-cases, etc., of various species, and references to the description of egg, larva and pupa of others given.]

Ent. Mo. Mag. **53** 128 (1917).

9. "The Myrmecophilous Lady-Bird *Coccinella distincta*, Fald., its Life-History and Association with Ants." [Complete life-history, eggs, larvae and pupa described and figured. "Donisthorpe has published the only complete history of any species [of Lady-bird]." Mrs. Merrit Hawkes. *Proc. Zool. Soc. Lond.* 1920 476.]

Ent. Rec. **31** 214-22 (1919) : **32** 1-3 (1920) (with two plates).

10. *Tiresias serra*, F., and its larva." [The observations on the larva for 86 years recapitulated; references to all descriptions and figures of the larva and pupa given; the use of the tail hairs explained.]

Ent. Mo. Mag. **56** 206 (1920).

11. "*Platyrhinus latirostis*, F., near Bristol; and a description of its larva (previously unknown)." [A careful and accurate description of the larva; with beautiful drawings by Miss Tassart.]

Ent. Rec. **32** 157 (1920).

12. Notes on the Myrmecophiles found with *Acanthomyops* (*Donisthorpea*) *brunneus*, Latr., in Britain." [The larva of *Euryusa sinuata*, Er., carefully described.]

Ent. Rec. **36** 133-39 (1924).

13. "The Bionomics of *Ludius ferrugineus*." [The rearing of the imago, habits and position of larva in pupation, etc., described.]

Proc. Ent. Soc. Lond. **2** 29 (1927).

14. "The Guests of British Ants." [Larvae of *Lomechusa strumosa*, F., *Dinarda dentata*, Gr., *Quedius brevis*, larva and pupa, figured, etc., etc.

London (1927).

Notes on the relationship between the Melitaeidi and particularly between those of the athalia, Rott., group.

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(Continued from p. 120.)

The next question there is to consider is that of the western group *athalia* in connection with the group of races which Reverdin has named *pseudathalia*, but which the Rule of Priority obliges one to call *helvetica*, Rühl. (*Soc. Entom.*, III., p. 133 (1888), because this peculiar race from Graubünden (Bergün) belongs to it and was the first which received a name. I possess it from Filisur and it corresponds with the "type" in the Rühl collection, now preserved in Florence at the *Stazione di Entomologia Agraria*. It is a very small and dark alpine race, with very white, silvery, spaces on the underside of the hindwings, especially in the female, which has a broad black suffusion covering the basal half of the wings on the upperside. Having found that the genitalia of that group are constantly different, to a marked degree, from those of the group of races which includes nominotypical *athalia*, Reverdin introduced it as a distinct species, though he made no mystery